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#### REMARKS

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### Status Summary

Claims 1-4, 6-15, 17-23, and 25-29 are pending in the present application. Claim 22 has been amended. Therefore, upon entry of this Amendment, claims 1-4, 6-15, 17-23, and 25-29 will remain pending.

## Claim Rejections Under 35 U.S.C. § 101

Claims 22, 23, and 25-29 stand rejected under 35 U.S.C. § 101. The Examiner contends that the claimed subject matter is directed to non-statutory subject matter because it does not recite a computer program product comprising computer executable instructions stored in a computer readable medium. (See page 2, of the Official Action).

Applicant has amended claim 22 as suggested by the Examiner. In particular, claim 22 has been amended to recite "computer program product comprising computer-executable instructions stored in a computer-readable medium" (emphasis added) rather than "computer program product comprising computer-executable instructions embodied in a computer-readable medium" (emphasis added). Accordingly, applicant respectfully submits that the rejection of independent claim 22 and dependent claims 23 and 25-29 under 35 U.S.C. § 101 should be withdrawn.

# Claim Rejections Under 35 U.S.C. § 102

Claims 1, 2, 4, 6-12, 14, 15, 17-23, and 25-29 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent Application Publication No. 2002/0118813 to Brehm et al. (hereinafter, "Brehm"). This rejection is respectfully traversed.

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Independent claims 1, 12, and 22 respectively recite a method, a system, and a computer program product for automated analysis of signaling link utilization data. Each of these claims recites that a graph of signaling link occupancy per unit time is displayed to a user via a signaling link utilization screen. Each claim also recites that the graph includes a plurality of portions indicating signaling link occupancies at different times. Input is received from a user for selecting one of the portions. In response to the input, signaling message data corresponding to the selected portion is automatically extracted from a signaling message database. Each claim also recites that the signaling message data includes message types for signaling messages corresponding to the selected portion of the graph.

An example of a graph that displays signaling link occupancy per unit time is illustrated in Figure 3. In Figure 3, the graph includes colored spikes that indicate link occupancies for different signaling links at different time periods. When a user selects one of the spikes, the signaling message data illustrated in Figure 4 is displayed. As illustrated in Figure 4, the signaling message data that is displayed includes the signaling message type, which allows the user to understand the causes of events, such as abnormal signaling link utilization, indicated by the selected portion of the graph.

There is absolutely no disclosure, teaching, or suggestion in <u>Brehm</u> of displaying a graph of signaling occupancy per unit time to a user where the graph includes portions indicating signaling link occupancies at different times, receiving user input for selecting one of the portions, and displaying corresponding signaling message type data from a database. <u>Brehm</u> is directed to verifying usage and quality of

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interconnection services for a communication network. In particular, <u>Brehm</u> discloses capturing signaling data for various interconnecting carriers 502 (e.g., carrier A, carrier B, and carrier C) by one or more monitors 310. (See paragraph 0059, of <u>Brehm</u>). The collected signaling data includes information about trunk usage, signaling usage, and service quality. (See paragraph 0059, of <u>Brehm</u>). The captured information is stored in a historical database 412. (See paragraph 0059, of <u>Brehm</u>).

Brehm further discloses that a workstation 318 may be used to request various reports of data stored in historical database 412. (See paragraph 0060, of Brehm). A workstation user may interactively request a particular report for one or more carriers (or trunk groups) over a particular period of time. (See paragraph 0060, of Brehm). Further, Brehm discloses that a user may "drill down" into information provided in a report to obtain greater information. (See paragraph 0060, of Brehm). In one example provided by Brehm, an initial report shows the "incoming minutes of use" for carriers A, B, and C. (See paragraph 0060, of Brehm). Additional detail about one of the carriers may be obtained by using a pointer device (e.g., a mouse) to click on a block of data associated with the carrier. (See paragraph 0060, of Brehm). As a result, a second report may be generated and presented that shows more detailed information about minutes of use for the selected carrier. (See paragraph 0060, of Brehm). Brehm discloses that a user may "drill" further into the data provided in the second report. (See paragraph 0060, of Brehm).

Although <u>Brehm</u> discloses "drilling down" into reports to obtain more detailed information, <u>Brehm</u> fails to teach or suggest displaying a graph of signaling link occupancy per unit time to a user and allowing the user to select and view

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corresponding signaling message type information. Accordingly, it is respectfully submitted that the rejection of claims 1, 12, and 22 under 35 U.S.C. § 102(b) should be withdrawn and the claims allowed at this time.

Claims 2, 4, 6-11, 14, 15, 17-21, 23, and 25-29 depend upon one of claims 1, 12, and 22. Accordingly, for the reasons provided for claims 1, 12, and 22, applicant respectfully submits that the rejection of claims 2, 4, 6-11, 14, 15, 17-21, 23, and 25-29 under 35 U.S.C. § 102(b) should be withdrawn and the claims allowed at this time.

### Claim Rejection Under 35 U.S.C. § 103

Claims 3 and 13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over <u>Brehm</u> in view of U.S. Patent No. 6,327,350 to <u>Spangler et al.</u> (hereinafter, "Spangler"). This rejection is respectfully traversed.

Claims 3 and 13 depend from claims 1 and 12, respectively. As set forth above, Brehm fails to teach or suggest displaying a graph of signaling link occupancy per unit time and allowing a user to select and view corresponding signaling message type information as claimed in claims 1 and 12. Spangler likewise lacks such teaching or suggestion. Spangler is directed to methods and systems for collecting and processing SS7 MSUs. Spangler is directed to generating call detail records (CDRs) based on the MSUs. A CDR does not indicate signaling link occupancy data. Rather, a CDR is a collection of signaling message parameters, for example as illustrated in column 14 of Spangler. Accordingly, because Brehm and Spangler, alone or in combination, fail to teach or suggest displaying a graph of signaling link occupancy per unit time and allowing a user to select and view signaling message type data corresponding to the

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link occupancy data, it is respectfully submitted that the rejection of claims 3 and 13 under 35 U.S.C. § 103(a) should be withdrawn and the claims allowed at this time.

### CONCLUSION

In light of the above Amendments and Remarks, it is respectfully submitted that the present application is now in proper condition for allowance, and an early notice to such effect is earnestly solicited.

If any small matter should remain outstanding after the Patent Examiner has had an opportunity to review the above Remarks, the Patent Examiner is respectfully requested to telephone the undersigned patent attorney in order to resolve these matters and avoid the issuance of another Official Action.

## **DEPOSIT ACCOUNT**

Although no fee is believed to be due, the Commissioner is hereby authorized to charge any fees associated with the filing of this correspondence to Deposit Account No. 50-0426.

Respectfully submitted,

JENKINS, WILSON, TAYLOR & HUNT, P.A.

Date: November 16, 2006

Ву:

Registration No. 41,085 Custower No. 25297

GAH/BJO 1322/158